Dräger CMS
Chip Measurement System

The world's only Chip Measurement System (CMS) makes spot measurements as easy as 1, 2, 3: insert chip – start measurement – read measurement result on the LCD display. The Dräger CMS combines the advantages of the Dräger-Tubes with those of an optoelectronic analysis system.

Dot matrix display
For clear legible concentrations and menu navigation

Carrying strap
Allowing the instrument to be carried, even when the user is wearing gloves

Main control element
For easy operation

ST-14162-2008

ST-1347-2004

Dräger CMS Chip
Suitable for 10 measurements of one gas.
Automatically supplies the Analyzer with the calibration data and measurement range of the respective gas

Benefits

Simple to use

The Dräger CMS is ready for use after only a brief instruction. It makes no difference which gas or vapour you wish to measure – the instrument is used in the same way every time. The operation is guided by a menu on the display and a single button/switch. The display can be backlit and is available in German, English, French or Spanish. After an automatic system self-test, the Analyzer is powered up and the measurement system is immediately ready for operation. Simply insert the chip, perform the measurement and read the measurement result displayed as a concentration on the screen. At the end of the measurement, the chip is automatically ejected from the instrument, and the Analyzer shuts down. An audible signal sounds after each operating step.

Power is supplied by four standard and easily replaceable batteries which are especially suited to the Analyzer‘s requirements (see technical data).

The battery capacity allows for more than seven hours of measurement and is, of course, always displayed on the screen.

Accurate

The principle of mass current measurement ensures that the instrument remains unaffected by fluctuations in air pressure. Because the chips are calibrated before leaving the factory, there is no need for the user to calibrate the Dräger CMS. Any possible temperature and humidity effects are checked during factory calibration.

The Analyzer is explosion protected and certified in accordance with ATEX (Europe), UL (USA & Canada) and CSA (Canada & USA).

In addition, the system is protected against dust and splash water in accordance with IP 54, and is resistant to electro-magnetic waves.

Remote-System

To allow measurements at places which are difficult to access, a Remote-System is available. This comprises of an additional pump and extension hose, and is connected to the back of the Analyzer.

Because the Remote-System is activated by its own switch, the system can remain attached to the Analyzer. A telescopic probe can also be attached to the Remote-System.

Accessories

D-10378-2009

Remote System

For measurements in inaccessible locations.

ST-14992-2008

Telescopic probe 100

For measurements in inaccessible locations.

D-25395-2009

Bar probe 90/3

For measurements in inaccessible locations.

D-6155-2014

CMS adapter

To connect the extension hose.

Accessories

ST-14341-2008

Extension hose set 3 meters

Inner diameter 3 mm, complete with float and adapter

ST-14341-2008

Extension hose set 10 meters

Inner diameter 3 mm, complete with float and adapter

Related Products

ST-36-2001

Dräger Short-term Tubes

Tried and tested a million times: Worldwide, the Dräger Short-term Tubes have proven to be a very cost-effective and reliable method for the measurement of gases. Decreasing occupational exposure values, special customer requirements and new legal regulations made it necessary to develop even more sensitive Dräger-Tubes.

Technical Data

Measurement range and resolution	Depends on chip type used – please see chip list
Typical measurement time	Between 20 sec and 3 min, depending on the concentration of the gas or vapour and on the type of chip being used Between 20 sec and 10 min in the case of special hazardous gases
Ready for measurement	Immediately
Poisoning effects	Not possible
Calibration	Not necessary
Temperature during operation	0 to 40 °C
Temperature during storage	-20 to +60 °C (Analyzer) < 25 °C (chips)
Air pressure	700 to 1,100 hPa
Humidity	0 to 95 % relative humidity, non-condensing
Recording of measured values	Six-fold optics and light conductor system, remission measurement
System diagnosis	Automatic, with microcontroller for all system components
Display	LCD, alphanumeric with backlighting
Menu languages	English, German, French, Spanish
Operating time	Approx. 450 min of measurement
Power supply 4 × 1.5 V batteries from the following types:	Ralsten (Energizer) Alkaline LR6 Duracell MN 1500 LR6 Rayovac Rechargeable Alkaline AA (only in conjunction with a charger: Rayovac Charger PS1 or PS3)
Weight	730 g (Analyzer with batteries)
Dimensions (L × W × H)	215 mm × 105 mm × 65 mm
Approvals	ATEX; II 2G Ex ib II C T4 Gb UL (USA & Canada) Class 1, Div. 1, Groups A, B, C, D, Temp. Code T4, CSA (Canada & USA) Class 1, Div. 1, Groups A, B, C, D, Ex ia, Temp. Code T4
Protection class	IP 54 dust and splash protection

[1] Subject to alteration

Ordering Information

Description	**Order no.**
Analyzer set, comprising of: Analyzer with integrated DataRecorder, batteries	64 05 300
Analyzer Remote (Analyzer with integrated Remote-System)	83 17 700
Remote-System for measurement in hard to reach places, incl. 3 m hose	64 05 060
Telescopic probe (1 m)	83 16 530
Extension hose set (3 m)	83 17 614
Extension hose set (10 m)	83 17 613
DRÄGER CMS CHIPS[1]	

Ordering Information

Description	Measurement range	Order no.
Acetic Acid	2 – 50 ppm	64 06 330
Acetone	40 – 600 ppm	64 06 470
Ammonia	0.2 – 5 ppm	64 06 550
Ammonia	2 – 50 ppm	64 06 130
Ammonia	10 – 150 ppm	64 06 020
Ammonia	100 – 2,000 ppm	64 06 570
Benzene	50 – 2,500 ppb	64 06 600
Benzene	0.2 – 10 ppm	64 06 030
Benzene	0.5 – 10 ppm	64 06 160
Benzene	10 – 250 ppm	64 06 280
Butadiene	1 – 25 ppm	64 06 460
Carbon Dioxide	200 – 3000 ppm	64 06 190
Carbon Dioxide	1,000 – 25,000 ppm	64 06 070
Carbon Dioxide	1 – 20 Vol.-%	64 06 210
Carbon Monoxide	5 – 150 ppm	64 06 080
Chlorine	0.2 – 10 ppm	64 06 010
Ethanol	100 – 2,500 ppm	64 06 370
Ethylene Oxide	0.4 – 5 ppm	64 06 580
Formaldehyde	0.2 – 5 ppm	64 06 540
Hydrocyanic Acid	2 – 50 ppm	64 06 100
Hydrochloric Acid	1 – 25 ppm	64 06 090
Hydrochloric Acid	20 – 500 ppm	64 06 140
Hydrogen Peroxide	0.2 – 2 ppm	64 06 440
Hydrogen Sulphide	0.2 – 5 ppm	64 06 520
Hydrogen Sulphide	2 – 50 ppm	64 06 050
Hydrogen Sulphide	20 – 500 ppm	64 06 150
Hydrogen Sulphide	100 – 2,500 ppm	64 06 220
Mercaptan	0.25 – 6 ppm	64 06 360
Methanol	20 – 500 ppm	64 06 380
Methylene Chloride	20 – 400 ppm	64 06 510
MTBE	10 – 200 ppm	64 06 530
Nirogen Dioxide	0.5 – 25 ppm	64 06 120
Nitrous Fumes	0.5 – 15 ppm	64 06 060
Nitrous Fumes	10 – 200 ppm	64 06 240
Ozone	25 – 1,000 ppb	64 06 430
Oxygen	1 – 30 Vol.-%	64 06 490
o-Xylene	10 – 300 ppm	64 06 260
Petroleum Hydrocarbons	20 – 500 ppm	64 06 200
Petroleum Hydrocarbons	100 – 3,000 ppm	64 06 270
Perchloroethylene	5 – 500 ppm	64 06 040
Phosgene	0.05 – 2 ppm	64 06 340
Phosphine	0.1 – 2.5 ppm	64 06 400
Phosphine	1 – 25 ppm	64 06 410
Phosphine	20 – 500 ppm	64 06 420
Phosphine	200 – 5,000 ppm	64 06 500
Propane	100 – 2,000 ppm	64 06 310
i-Propanol	40 – 1,000 ppm	64 06 390
Sulphur Dioxide	0.4 – 10 ppm	64 06 110
Sulphur Dioxide	5 – 150 ppm	64 06 180
Styrene	2 – 40 ppm	64 06 560

Ordering Information

Toluene	10 – 300 ppm	64 06 250
Trichlorethylene	5 – 100 ppm	64 06 320
Vinyl Chloride	0.3 – 10 ppm	64 06 170
Vinyl Chloride	10 – 250 ppm	64 06 230
Water Vapour	0.4 – 10 mg/L	64 06 450
Training Chip	Simulation	64 06 290

[1] Subject to alteration

Notes

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